

## AMENDMENTS TO THE CLAIMS

1-19. (Canceled)

20. (Currently amended) A method for diagnosing an autistic spectrum disorder in a patient, comprising the steps of:

a) determining a level of antibodies to a self-tissue or peptide selected from the group consisting of ~~a digestive enzyme, an~~ aminopeptidase, dipeptidyl peptidase IV, CD26, ~~DPPI, CD13[[,]] and~~ CD69, ~~transglutaminase, epithelial cells, brush border antigens and enzymes, colon tissue antigens, gastrin, gastrin inhibitory polypeptide, secretin, motilin, enkephelin, substance P, somatostatin, serotonin receptor, serotonin, somatostatin, vasoactive intestinal peptide, prodynorphin, dynorphin, dipeptidylpeptidase IV, and complex dipeptidylpeptidase IV~~ in one or more samples from the patient; and

b) comparing the level of antibodies determined in step a) with a normal level of the antibodies from control subjects, wherein

(i) normal level or lower than normal levels of antibodies indicate absence of autistic spectrum disorder in said patient; and

(ii) higher than normal level of the antibodies indicates the presence of the autistic spectrum disorder in said patient.

21. (Canceled)

22. (Canceled).

23. (Canceled).

24. (Original) The method of claim 20, wherein the autistic spectrum disorder is selected from the group consisting of autism, pervasive developmental disorder, and Asperger's Syndrome.

25. (Original) The method of claim 24, wherein the autistic spectrum disorder is autism.

26. (Original) The method of claim 20, wherein the normal level of antibodies is calculated by taking a mean of levels of antibodies in individuals without symptoms relating the autistic spectrum disorder.

27. (Original) The method of claim 20, wherein the higher than normal level of antibodies is higher than about two standard deviations of normal level of antibodies of a control group.

28. (Original) The method according to claim 20, wherein determining the level of antibodies in any or all of steps a) and b) is accomplished using an immunoassay.

29. (Original) The method according to claim 28, wherein the immunoassay is selected from the group consisting of ELISA, RAST, dot blot, Western blot, and ELISPOT.

30. (Original) The method according to claim 20, wherein the antibodies are selected from the group consisting of IgG, IgA, and IgM.